

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Application No.: 09/304,841

Copies of the above together with Applicants' stamped Filing Receipt are attached hereto for the Examiner's convenience.

Review and reconsideration on the merits are requested.

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph. The Examiner considered the term "degree of flatness" to be indefinite relative to the claimed compression degree of at least 20%.

Applicants respond as follows.

Unlike aspect ratio or compression degree, the degree of flatness is not a quantitative standard that can be derived from a predetermined formula. Rather, it is simply used to express that the oxygen absorbing particles have a flat shape. In other words, the degree of flatness is simply used to emphasize that the oxygen absorbing particles which satisfy the aspect ratio and compression degree as claimed in claim 1 have a shape which is flat.

The relationship between aspect ratio and compression degree is as follows. Namely, as represented by the ratio (b/a) of the length a of the longest axis of a particle and the length b of a short axis at right angles with a long axis at the center point, the aspect ratio is a value expressing the shape of a flat surface of particular two axes of a solid particle. Without taking another axis (c -axis) into consideration, the aspect ratio represents the flatness of the particle in cross-sectional shape.

On the other hand, the compression degree specifies the properties of the particle by also taking the c -axis into consideration in addition to the particular sectional shape of the particle. Namely, the compression degree relates to how densely (without gaps) the particles can be filled in a relationship among the particles. Therefore, when evaluating the compression degree, the shape and size of the whole particle inclusive of the size and the c -axis direction is considered in addition the cross-section defined by the particular two-dimensional sizes of the particle. Namely, to find the

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find the compression degree according to the measuring method described in the specification, tapping is effected to stabilize the relationship among the particles, and then, an apparent density which is solid to some extent (called the “packed apparent density”) is found. The compression degree is then determined from the difference between the “packed apparent density” and the “apparent density” as described at page 37 of the specification. The relationship among the particles differs depending upon the shape and size of the particles, and the compression degree specifies the properties (shape, size, etc.) of the particles from a standpoint quite different from its aspect ratio.

As claimed in claim 1, the oxygen absorbing agent particle has an average particle diameter of 10 to 50 μm . The oxygen absorbing agent particle has an aspect ratio of 0.6 or below, present in an amount of at least 50%. Furthermore, the oxygen absorbing agent particle is a flat or spindle-shape particle having a compression degree of at least 20%. The aspect ratio measurement is described at page 38, lines 2-9. The compression degree measurement is described at page 36, line 26-page 37, line 25. The language of claim 1 is clear.

Withdrawal of the foregoing rejection under 35 U.S.C. § 112, second paragraph is respectfully requested.

Claims 1, 4, 6, 8 and 10-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,908,676 to Otaki et al.

In response, Applicants submit herewith the verified English translation of Japanese Patent Application No. 275976/96 filed October 18, 1996 from which priority is claimed under 35 U.S.C. § 119(a), to thereby antedate Otaki et al having a subsequent June 30, 1997 U.S. filing date.

In reference to the verified translation, claim 1 finds support at page 14, line 1 up - page 15, line 8, at page 20, line 1 up - page 20, line 1, at page 15, lines 21-24 and at page 12, line 12-page 13,

line 5; claim 4 finds support at page 20, line 23-page 21, line 5 and at page 21, line 24-page 22, line 2; claim 6 finds support at page 14, lines 8-12; claim 8 finds support at page 11, lines 5-21; claim 10 finds support at page 13, lines 17-19; claim 11 finds support at page 11, lines 5-21 and at page 10, lines 15-20; claim 12 finds support at page 14, lines 8-12; claim 13 finds support at page 23, lines 19-24 and at page 23, line 1 up - page 24, line 15; claims 14 and 15 find support at page 28, line 15-page 29, line 5 and at page 29, line 2 up-page 30, line 12.

Regarding claims 6 and 12, the upper limit of 200 parts by weight is rigorously supported by the priority document, whereas the lower limit of one part by weight is implicit. Regarding claims 14 and 15, the disclosure of container, cup, tube, bottle, film, tray, bag, etc., in the priority document adequately supports the claimed “plastic cap” and “liner material for caps”.

Although Applicants submit that they have perfected their claim for priority to thereby antedate Otaki et al, Applicants nevertheless respectfully disagree with the Examiner’s position regarding the disclosure of Otaki et al as follows. The Examiner considered that Otaki et al discloses a fibrous particle having a circular cross section with a diameter of 50 μm (aspect ratio of 1), from which a person of ordinary skill could have readily determined the claimed aspect ratio and need for flat particles through routine optimization.

However, Otaki et al simply describes that even in the case of fibrous metal iron, the diameter and length are made as small as possible as in the case of particles. However, from this description and in the absence of the teachings in Applicants’ specification, the claimed aspect ratio of 0.6 or below and the need for flat particles would not have been apparent.

If one could estimate from Otaki et al that the aspect ratio is one, this means that the particles have a truly circular shape in cross section, which is quite different from the flat shape or spindle-like

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shape of the particles of the present invention. Therefore, one of ordinary skill would never have been led to select an aspect ratio of 0.6 or below or to flatten the shape of the particles based on the above description, namely, particles having a truly circular and cross section.

Withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1, 4, 6, 8 and 10-15 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

Respectfully submitted,



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